

## REMARKS

### Claim Rejections Under 35 USC §112, first paragraph

Claims 55-75 have been rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement. In support of these rejections the Office Action states: "The method steps of claims 55-75 are not set forth anywhere in the original disclosure."

These rejections are traversed as all of the claim recitations have support in the original specification. A reading of the claims on the specification and drawings is as follows.

55. A method for burn-in testing (**page 1, line 4-6**) a semiconductor die (**21-Figures 1-3**) having a pad (**bondpad 27-Figures 1-3**) comprising:

providing (**page 4, line 19**) a fixture (**burn-in fixture 11-Figures 1-2**) for establishing electrical contact between the die and a burn-in oven (**page 5, lines 30-33**), the fixture (**burn-in fixture 11-Figures 1-2**) comprising a plate (**die cavity plate 13-Figures 1-2**) for receiving the die, an external lead (**connector lead 32-Figures 1-2**) on the plate, a cover (**cover 15-Figures 1-2**) configured for attachment to the plate (**page 9, lines 27-29**), and a film (**plastic film 43-Figures 1-3**) comprising a bump (**bump 47-Figure 2**) for electrically contacting the pad (**bondpad 27-Figures 1-3**) and a conductive trace (**trace 45-Figures 1-3**) in electrical communication with the bump and the external lead (**page 9, lines 13-15**);

placing the die face up on the plate (**page 4, lines 23-24**) and the film on the die (**Figures 1-3**) with the bump on the pad (**Figures 1-3**);

assembling (**page 5, line 11**) the fixture by securing (**page 9, line 27**) the cover to the plate with the

film biased against the die and the bump in electrical contact with the pad (**page 5, lines 8-11 and Figures 1-3**); and

placing the external lead in electrical contact with the burn-in oven (**page 5, lines 30-33**).

56. The method of claim 55 wherein the providing step comprises providing the fixture (**burn-in fixture 11-Figures 1-2**) with a plurality of external leads (**connector leads 32-Figures 1-2**) and the film (**plastic film 43-Figures 1-3**) with a plurality of bumps (**bumps 47-Figure 2**) and a plurality of conductive traces (**traces 45-Figures 1-3**) in electrical communication with the bumps.

57. The method of claim 55 wherein the providing step comprises providing the fixture (**burn-in fixture 11-Figures 1-2**) with a compressible member (**compressible elastomeric strip 53**) and the assembling step is performed with the compressible member biasing the film against the die (**page 9, lines 28-29**).

58. The method of claim 55 wherein the providing step comprises providing the fixture (**burn-in fixture 11-Figures 1-2**) with a cavity (**die receiving cavity 17-Figure 1-2**) on the plate (**die cavity plate 13-Figures 1-2**) for the die.

59. The method of claim 55 wherein the providing step comprises providing the fixture (**burn-in fixture 11-Figures 1-2**) with a clamp (**clamp 61-Figures 1-2**) and the assembling step comprises securing the cover to the plate with the clamp (**page 10-lines 11-12**).

60. The method of claim 55 wherein the pad comprises a bondpad (**bondpad 27-Figures 1-3**).

61. A method for burn-in testing (**page 1, line 4-6**) a semiconductor die (**21-Figures 1-3**) having a pad (**bondpad 27-Figures 1-3**) comprising:

providing (**page 4, line 19**) a fixture (**burn-in fixture 11-Figures 1-2**) for establishing electrical contact between the die and a burn-in oven (**page 5, lines 30-33**), the fixture (**burn-in fixture 11-Figures 1-2**) a plate (**die cavity plate 13-Figures 1-2**) having a plurality of external leads (**connector lead 32-Figures 1-2**), a cover (**cover 15-Figures 1-2**), a compressible member (**compressible elastomeric strip 53**) and a film (**plastic film 43-Figures 1-3**) comprising a plurality of bumps (**bumps 47-Figure 2**) in electrical communication with the external leads;

placing the die face up on the plate and the film on the die with the bumps on the pads (**page 4, lines 23-24 and Figures 1-3**);

assembling (**page 5, line 11**) the fixture by securing (**page 9, line 27**) the cover and the compressible member to the plate and biasing the film against the die (**page 5, lines 8-11 and Figures 1-3**; and

placing the external leads in electrical contact with the burn-in oven (**page 5, lines 30-33**).

62. The method of claim 61 wherein the pads comprise bond pads (**bondpads 27-Figures 1-3**).

63. The method of claim 61 wherein the film comprises a plurality of conductive traces (**traces 45-Figures 1-3**) configured to establish electrical communication between the bumps and the external leads.

64. The method of claim 61 wherein the external leads comprise pins in a dual in line (DIP) configuration (**page 8, lines 19-21**).

65. The method of claim 61 wherein the external leads comprise pins in a quad flat pack (QFP) configuration (**page 8, lines 19-21**).

66. The method of claim 61 wherein the compressible member comprises an elastomeric strip (**compressible elastomeric strip 53**).

67. A method for burn-in testing (**page 1, line 4-6**) a semiconductor die (**21-Figures 1-3**) having a pad (**bondpad 27-Figures 1-3**) comprising:

providing (**page 4, line 19**) a fixture (**burn-in fixture 11-Figures 1-2**) comprising a plate (**die cavity plate 13-Figures 1-2**), a contact (**contact pad 37-Figure 1**) on the plate, and an external lead (**connector lead 32-Figures 1-2**) on the plate in electrical communication with the contact (**page 9, lines 13-15**);

providing the fixture (**burn-in fixture 11-Figures 1-2**) with a die contact member (**page 4, lines 24-25**) comprising a plastic film (**plastic film 43-Figures 1-3**), a first bump (**bump 47-Figure 2**) on the plastic film for electrically contacting the pad, a conductive trace (**traces 45-Figures 1-3**) on the plastic film in electrical communication with the first bump, and a second bump (**bump 48-Figure 2**) on the plastic film in electrical communication with the conductive trace;

assembling (**page 5, line 11**) the fixture with the die on the plate and the plastic film biased against the die with the first bump in contact with the pad and the second bump in contact with the contact (**Figure 2**); and

placing the external lead in electrical contact with the burn-in oven (**page 5, lines 30-33**).

68. The method of claim 67 wherein the pad comprises a bondpad (**bondpad 27-Figures 1-3**).

69. The method of claim 67 wherein the providing the fixture step comprises providing the fixture with a compressible member (**compressible elastomeric strip 53**) configured to bias the plastic film against the die during the assembling step.

70. The method of claim 67 wherein the plastic film comprises a polyamide (**page 9, line 10**).

71. The method of claim 67 wherein the second bump is bonded to the contact (**page 10, lines 2-4**).

72. A method for burn-in testing (**page 1, line 4-6**) a semiconductor die (**21-Figures 1-3**) having a pad (**bondpad 27-Figures 1-3**) comprising:

providing (**page 4, line 19**) a fixture (**burn-in fixture 11-Figures 1-2**) comprising a plate (**die cavity plate 13-Figures 1-2**), an external lead (**connector lead 32-Figures 1-2**) on the plate, a cover (**cover 15-Figures 1-2**) and a compressible member (**compressible elastomeric strip 53**) configured for attachment to the plate, and a film (**plastic film 43-Figures 1-3**) comprising a bump (**bumps 47-Figure 2**) for electrically contacting the pad and a conductive trace (**trace 45-Figures 1-3**) in electrical communication with the bump and the external lead;

assembling (**page 5, line 11**) the fixture by placing the die on the plate (**Figures 1-3**), the film on the die (**Figures 1-3**), the compressible member (**compressible elastomeric strip 53**) on the film (**Figures 1-3**) and then attaching the cover to the plate with the compressible member biasing the film against the die with the bump in electrical contact with the pad (**page 5, lines 8-11 and Figures 1-3**); and

placing the external lead in electrical contact with the burn-in oven (**page 5, lines 30-33**).

73. The method of claim 72 wherein the fixture comprises a plurality of external leads (**connector leads 32-Figures 1-2**) and the film (**plastic film 43-Figures 1-3**) comprises a plurality of (**bumps 47-Figure 2**) and a plurality of conductive traces (**traces 45-Figures 1-3**) in electrical communication with the bumps.

74. The method of claim 72 the film comprises plastic (**page 9, line 9**).

75. The method of claim 72 wherein the pad comprises a bondpad (**bondpad 27-Figures 1-3**).

Claim Rejections Under 35 USC §112, second paragraph

Claims 55-75 have been rejected under 35 USC §112, second paragraph, as being indefinite. These rejections are traversed. However, the claims have been amended to more clearly define the features of the claimed method.

The 35 USC §112, second paragraph rejections are based in part on the term "test fixture". The amended claims remove "test fixture" and recite "fixture" throughout. The "fixture" in the claims is the "burn-in/test fixture" described in the "Summary Of The Invention", and the "burn-in fixture 11" described in the "Detailed Description Of The Preferred Embodiment". The fixture of the claims, the burn-in/test fixture of the Summary, and the burn-in fixture 11 of the Detailed Description are the same element.

In accordance with MPEP §706.03(d) alternative expressions such as "brake or locking device" may make a claim indefinite, if the limitation covers two different elements. However, in the present case the claims do not recite alternative expressions. In addition, the "fixture"

recitation has literal antecedent basis in both the "Summary" and the "Detailed Description".

The 35 USC §112, second paragraph rejections are also based in part on the "plastic film" being recited as a separate element rather than as an element of the "fixture". The claims have been amended to more clearly state that the "film" or the "plastic film" comprises an element of the fixture.

The 35 USC §112, second paragraph rejections are also based in part on the step of "placing the external lead in electrical contact with the burn-in oven" as being unclear. This objection is traversed, because one skilled in the art would understand that the external lead on the fixture is placed in electrical communication with a corresponding element, such as a socket; on the burn-in oven. As held in In re Skivan, 427 F.2d 804, 166 USPQ 85 (CCPA 1970), a claim can omit information that would be obvious to a person of ordinary skill in the art.

As requested by the Examiner, an IDS is being submitted with references illustrating prior art burn-in ovens at the time of the invention. Please note US Patent No. 5,157,829 to Schmidt et al., which illustrates a burn-in test oven 28 in Figures 5 and 6. As described at column 3, line 57 to column 4, line 32 of Schmidt et al., the burn-in test oven 28 includes sockets 34 which mate with edge connectors 18 (Figure 6) on printed circuit boards 22 (Figure 6).

Also please note US Patent No. 4,881,591 to Rignall, which illustrates a burn-in oven having a chamber B (Figure 2) and a burn-in board 11 in the chamber B, which electrically engages integrated circuits 11 (column 2, lines 51-53).

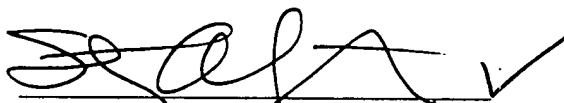
Conclusion

In view of the above arguments and amendments, favorable consideration and allowance of claims 55-75 is respectfully requested. An Information Disclosure Statement is being filed concurrently with this Amendment.

Should any issues arise that will advance this case to allowance, the Examiner is asked to contact the undersigned by telephone.

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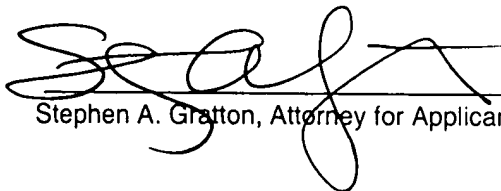
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